

Remarks

Claims 1-21, 24 and 28-29 were previously withdrawn without prejudice to renew. Accordingly, claims 22-23 and 25-27 are now pending. Claims 22 and 26 are amended. New claim 30 is added.

In the August 11, 2005 Office Action, the Examiner has withdrawn the previous rejections of claims 22, 23 and 25-27 under 35 U.S.C. § 102(b) as being anticipated by Meyer et al., U.S. Patent No. 5,118,434, or Maes et al., U.S. Patent No. 5,366,651. The Examiner has also withdrawn the previous rejection of claims 22-29 under 35 U.S.C. § 102(b) as being anticipated by Hansen, U.S. Patent No. 4,728,452.

In the August 11, 2005 Office Action, claims 22-29 were rejected under 35 U.S.C. § 112 as failing to comply with the written description requirement. Claims 22, 23, 25 and 26 stand rejected under 35 U.S.C. § 102(b) as anticipated by Reny, WO 89/09806. Claims 24 and 27-29 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Reny WO 89/09806. Claims 22, 23 and 25-27 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Meyer, U.S. Patent No. 5,118,434, or Maes, U.S. Patent No. 5,366,651. Claims 22-29 stand rejected under 35 U.S.C. § 103(a) as being obvious in view of Hansen, U.S. Patent No. 4,728,452, or Wood, U.S. Patent No. 4,455,248. Claims 22, 23 and 25-27 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-11 of copending Application No. 10/264,041, claims 1-10 of Application No. 10/347,900, claims 27-50 of Application No. 10/910,497 and claims 30-33 of Application No. 10/935,982.

Claim 22 has been amended to recite that the method of the present invention requires the addition to a fluid containing ethylene glycol of a second glycol that acts as the alcohol dehydrogenase (ADH) enzyme inhibitor to achieve a concentration of the second glycol of between 1% by weight and 30% by weight of the sum of the weight of

the ethylene glycol fraction and the weight of the second glycol fraction of the resulting mixture. Claim 22 has also been amended to recite that the resulting fluid must have an LD₅₀ value for oral toxicity in rats of at least 10,000 mg/kg. Claim 26 has been amended to recite the method in which the second glycol is propylene glycol, and the propylene glycol is added to achieve a concentration of between 1% by weight and 30% by weight of the sum of the weight of the ethylene glycol fraction and the weight of the propylene glycol fraction of the resulting mixture. Support for these amendments may be found in the specification at, for example, pages 18-20.

New claim 30 has been added to recite an embodiment of the method in which the aqueous fluid containing ethylene glycol and the second glycol contains at least 10 percent by weight water. Support for this claim may be found in the specification at, for example, page 4, lines 12-16; page 22, lines 7-8.

As recited in claims 22-23 and 25-27 as amended and new claim 30, the present invention is directed to methods of reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing a second glycol, such as propylene glycol, that acts as an ADH enzyme inhibitor with a fluid containing ethylene glycol to reduce the oral toxicity of the fluid. As recited in the claims as amended, the second glycol is provided in an amount such that the concentration of the second glycol in the fluid is equal to between about one percent by weight and less than 30 percent by weight of the sum of the ethylene glycol and the second glycol in the resulting fluid.

As set forth in the specification at, inter alia, pages 17-21, the inventors discovered that addition of a second glycol that acts as an alcohol dehydrogenase (ADH) enzyme inhibitors, such as for example propylene glycol, to aqueous fluids containing ethylene glycol, such as for example heat transfer fluids used in automobiles, unexpectedly reduced the oral toxicity of the ethylene glycol based fluids far below the

levels which would have been predicted based on the toxicity of each substance alone. Ethylene glycol is commonly used in heat transfer fluids containing water to reduce the freezing point of the fluid. Ethylene glycol is relatively inexpensive. However, ethylene glycol has an oral toxicity rating that is relatively high. As set forth in the specification, addition of as little as 1% by weight of a second glycol that acts as an ADH enzyme inhibitor, such as propylene glycol, can reduce the oral toxicity of the resulting fluid to the point where it is considered non-toxic (note that a higher LD₅₀ indicates lower oral toxicity, i.e. more material must be ingested to cause a toxic effect). The method of the present invention results in the reduction in the oral toxicity of ethylene glycol containing heat transfer fluids such that the LD₅₀ value for oral toxicity in rats is at least 10,000 mg/kg.

Claim 22 has been amended to include an upper limit of less than 30 percent by weight on the amount of the second glycol in the fluid. As set forth above, this upper limit is supported by the specification. Accordingly, Applicants respectfully request that the rejection under 35 U.S.C. § 112 be withdrawn.

For at least the reasons set forth below, claims 22-23 and 25-27 as amended and now claim 30 are patentable over the prior art references cited by the Examiner under both 35 U.S.C. § 102(b) and 35 U.S.C. § 103. The Reny reference does not teach all of the limitations of the claims as amended. None of the references cited by the Examiner recognize the problem of oral toxicity of ethylene glycol based heat transfer fluids, much less teach or suggest a solution to this problem. Moreover, although the references cited by the Examiner recite generically that ethylene glycol and other alkylene glycols may be combined, none of the reference cited by the Examiner teach or suggest combining ethylene glycol and propylene glycol in the ranges recited in the claims, which provide

unexpectedly reduced oral toxicity. The cited references are therefore insufficient to support a rejection under 35 U.S.C. § 103(a). See In re Baird, 16 F.3d 380, 382 (“The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious.”).

The Rejections Under 35 U.S.C. §§ 102(b) and 103(a) Based Upon Reny

Claims 22, 23, 25 and 26 stand rejected under 35 U.S.C. § 102(b) under Reny, WO 89/09806. Reny describes a heat transfer fluid containing alkylene glycols, corrosion inhibitor additives, phosphoric acid to buffer the pH of the fluid and up to 10 percent water. At page 3, lines 1-15, Reny describes among the components of the composition: “at least 90 weight percent of an alkylene glycol or a mixture of two or more alkylene glycols”. Reny states that the compound may contain ethylene glycol, propylene glycol, glycerol, or mixtures of these components. Reny goes on to state that the alkylene glycol is preferably propylene glycol or a mixture having at least 30 weight percent propylene glycol. Page 4, lines 6-10. All of the compositions specifically described by Reny include at least 30 percent by weight propylene glycol.

To anticipate a claim under 35 U.S.C. § 102(b), each and every element of the claimed invention must be found in a single prior art reference. MPEP § 2131. Reny does not describe a method for reducing the toxicity of an ethylene glycol based, non-aqueous fluid by adding an ADH enzyme inhibitor as recited in the amended claims. Moreover, Reny does not describe a fluid containing between about 1 percent by weight to less than 30 percent by weight of an ADH enzyme inhibitor such as propylene glycol or glycerol as recited in the claims as amended. Accordingly, for at least each of these reasons, Reny does not describe each and every element of claims 22, 23, 25 and 26 as amended, and these claims are patentable over Reny under 35 U.S.C. § 102(b). Reny

does not anticipate new claim 30 for the additional reason that claim 30 recites an aqueous heat transfer fluid having more than 10 percent by weight water. The maximum water content in the fluid described by Reny is 10 percent by weight.

The Examiner has rejected claims 24 and 27-29 as obvious under 35 U.S.C. § 103(a) in view of Reny. Claims 24 and 28-29 were previously withdrawn. Claim 27 recites a method for reducing the oral toxicity of an ethylene glycol based fluid by mixing propylene glycol with the ethylene glycol to achieve a propylene glycol concentration of 5 percent by weight of the total weight of the glycols in the resulting fluid. Reny does not teach or suggest adding propylene glycol to an ethylene glycol based fluid in this proportion. In fact, Reny states that the composition described therein should contain at least 30 percent by weight propylene glycol. Therefore, Reny provides no motivation to combine propylene glycol and ethylene glycol in the proportions recited in claim 27, and suggests to the contrary that it would be undesirable to make such a combination. Accordingly, claim 27 is not obvious in view of Reny. MPEP § 2144.08.

At page 7 of the Office Action, the Examiner states that Reny suggests reducing the toxicity of an ethylene glycol based fluid by addition of a polyhydric alcohol such as glycerol. There is no such teaching or suggestion in Reny. Accordingly, for at least these reasons, the rejection of claim 27 as obvious in view of Reny should be withdrawn.

The Rejection Under 35 U.S.C. § 103(a) Based Upon Meyer

Claims 22, 23 and 25-27 stand rejected based upon Meyer, U.S. Patent No. 5,118,434. Meyer describes deicing solutions comprising alkylene glycols, water, corrosion inhibitors, and one or more polymeric additives. The composition described by Meyer includes the polymeric additives to prevent precipitation of materials contained in the composition, and precipitation of materials contained in water that may be mixed with the composition. Meyer is directed to the problem of precipitates formed in deicing

solutions. Meyer describes glycol-based deicing fluids which may contain from 50-99 percent alkylene glycols. Meyer lists propylene glycol and ethylene glycol among numerous substance that may be used in the deicing compositions described therein. Meyer does not describe, teach or suggest combining ethylene glycol with a second glycol in any specific proportions. Moreover, Meyer does not describe, or otherwise teach or suggest, a method to reduce the toxicity of ethylene glycol containing fluids by combining ethylene glycol and an ADH enzyme inhibitor, such as for example propylene glycol, in any specific proportions, much less in the proportions specified in the present application in claims 22-23 and 25-27. The general description that compounds may be mixed does not render obvious specific formulations that provide unexpected results. See In re Baird, 16 F.3d 380, 382 ("The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious."); MPEP 2.44.08.

Claims 22-23 and 25-27 are patentable over Meyer under 35 U.S.C §103. Meyer does not describe combining ethylene glycol and propylene glycol in any amount to reduce the oral toxicity of an ethylene glycol containing fluid, and Meyer clearly does not describe combination of ethylene glycol and propylene glycol in the proportions recited in claims 22-23 and 25-27. As demonstrated by the test results set forth in the application at pages 17-21, the toxicity of compositions containing ethylene glycol and propylene glycol, and in particular in the specific proportions recited in claims 22-25 and 27-29, is unexpectedly reduced to levels that render the compositions safe to use. Where, as here, the Applicant shows that a claimed range achieves unexpected results relative to the prior art, a prima facie case of obviousness is rebutted. In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); MPEP § 2144.05. There is no teaching or suggestion in Meyer to use ethylene glycol and propylene glycol in the proportions specified, and there

is no teaching or suggestion of the results unexpectedly achieved by mixing the two in the proportions recited in the amended claims.

At page 8 of the Office Action, the Examiner correctly states that Meyer does not teach with sufficient specificity a method for reducing the toxicity of an ethylene glycol based fluid by the addition of a polyhydric alcohol such as propylene glycol or glycerol. The Examiner incorrectly states, however, that it would have been obvious to one skilled in the art to reduce the oral toxicity of an ethylene glycol based fluid because Meyer teaches or suggests reducing the oral toxicity by addition of a diol such as propylene glycol. Meyer does not recognize or discuss the problem of reducing the oral toxicity of ethylene glycol based fluids, much less describe, teach or suggest a method to reduce the toxicity of a non-aqueous ethylene glycol based fluid as recited in the new and amended claims. Moreover, Meyer does not describe, teach or suggest, combining ethylene glycol containing fluids with a polyhydric alcohol such as propylene glycol in any specific proportions, much less the specific proportions recited in claims 22-23, 25-27 and 30, which resulted in a fluid having an unexpectedly large decrease in oral toxicity. As shown, for example, in Fig. 3, the predicted LD₅₀ in rats for the claimed combination of ethylene glycol and propylene glycol was about 6,000 mg/kg or less. As set forth in the specification at pages 24-27, the inventors discovered that the claimed compositions unexpectedly had an LD₅₀ in rats of at least 10,000 mg/kg or more.

For at least the foregoing reasons, claims 22-23, 25-27 and 30 are patentable over Meyer under 35 U.S.C. § 103(a).

The Rejection Under 35 U.S.C. § 103(a) Based Upon Maes

Claims 22-23 and 25-27 stand rejected under 35 U.S.C. § 103 over Maes et. al., U.S. Patent Number 5,366,651. At col. 3, line 65 to col. 4, line 68, Maes states "The antifreeze formulations most commonly used include water and water soluble liquid

alcohol freezing point depressants such as glycol and glycol ethers.” In this sentence, Maes uses glycol in the singular and glycol ethers in the plural. In the sentence following, Maes provides a list of “glycol ethers which can be employed.” Throughout the specification, Maes describes antifreeze formulations containing a single glycol, indicating that only a single glycol is used in the formulation. Thus, Maes plainly describes the use of a single glycol, and Maes does not teach or suggest any combination of glycols, much less the combination and proportions recited in the claims. For at least this reason, in addition to the reasons set forth in Applicants’ August 16, 2004 Response to Office Action in this case, applicants’ maintain that Maes does not describe, teach or suggest the combination of more than one glycol freezing point depressant for any reason, much less the addition of a second glycol to a fluid containing ethylene glycol to reduce the oral toxicity of the ethylene glycol-containing fluid as recited in the methods of claims 22-23, 25-27 and new claim 30.

In addition, Maes does not describe, teach or suggest a method to reduce the oral toxicity of an ethylene glycol containing fluid by addition of a second glycol, such as for example propylene glycol, that acts as an ADH enzyme inhibitor as recited in the amended claims. Maes does not teach or suggest combining an ethylene glycol based heat transfer fluid in any specific proportions with propylene glycol, much less in the proportions recited in claims 22-23 and 25-27 as amended and new claim 30. The general description that compounds may be mixed does not render obvious specific formulations that provide unexpected results. See In re Baird, 16 F.3d 380, 382 (“The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious.”); MPEP 2144.08.

As set forth in the specification, the present inventors discovered that adding a second glycol that acts as an ADH enzyme inhibitor, such as propylene glycol, in the

proportions recited in claims 22-23, 25-27 and 30 to an ethylene glycol based heat transfer fluid unexpectedly reduced the toxicity of the resulting fluid below the level that would have been predicted based on the properties of the individual fluids. Where, as here, a claimed range achieves unexpected results, the claimed range is patentable over the prior art. In re Woodruff, 919 F.2d 1575 (Fed. Cir. 1990); MPEP § 2144.05. Accordingly, even under the Examiner's reading of Maes, claims 22-23, 25-27 and 30 are patentable under 35 U.S.C. § 103 for at least this reason.

At page 8 of the Office Action, the Examiner correctly states that Maes does not teach with sufficient specificity a method for reducing the toxicity of an ethylene glycol based fluid by the addition of a polyhydric alcohol such as propylene glycol or glycerol. The Examiner incorrectly states, however, that it would have been obvious to one skilled in the art to reduce the oral toxicity of an ethylene glycol based fluid because Maes teaches or suggests reducing the oral toxicity by addition of a diol such as propylene glycol. Maes does not recognize or discuss the problem of reducing the oral toxicity of ethylene glycol based fluids, much less describe, teach or suggest a method to reduce the toxicity of a non-aqueous ethylene glycol based fluid as recited in the new and amended claims. Moreover, Maes does not describe, teach or suggest, combining ethylene glycol containing fluids with a polyhydric alcohol such as propylene glycol or glycerol in any specific proportions, much less the specific proportions recited in claims 30-33 and 40, which resulted in a fluid having an unexpectedly large decrease in oral toxicity. As shown, for example, in Fig. 3, the predicted LD₅₀ in rats for the claimed combination of ethylene glycol and propylene glycol was about 6,000 mg/kg or less. As set forth in the specification at pages 24-27, the inventors discovered that the claimed compositions unexpectedly had an LD₅₀ in rats of at least 10,000 mg/kg or more.

For at least the foregoing reasons, claims 22-23, 25-27 and 30 are patentable over Maes under 35 U.S.C. § 103(a).

The Rejection Under 35 U.S.C. § 103(a) Based Upon Hansen

Claims 22-23 and 25-29 stand rejected under 35 U.S.C. § 103 over Hansen, U.S. Patent No. 4,728,452. Claims 28 and 29 have been withdrawn. Hansen describes coolant compositions for use in aqueous coolant systems. Col. 1, lines 7-10. The compositions include water soluble corrosion inhibitors to reduce corrosion of metal surfaces in the cooling system using aqueous coolants. Col. 2, lines 24-57. Hansen states that the corrosion inhibitor composition may be used in water alone, "or water in admixture with freezing point depressing amounts of at least one alcohol, at least one glycol or a mixture of at least one alcohol and at least one glycol" in a closed aqueous cooling system. Col. 2, lines 40-44. Hansen does not describe, teach or suggest the use of a combination of glycols for any purpose, and clearly does not describe, teach or suggest adding a second glycol, such as propylene glycol, to an ethylene glycol containing fluid to reduce the oral toxicity of the fluid as recited in claims 22-23, 25-27 and 30. In fact, as noted by the Examiner, Hansen teaches the use of at least 10% by weight of a water soluble nitrite in the composition. Nitrites are very toxic materials, and a person attempting to reduce the toxicity of an ethylene glycol based fluid would not consider the use of fluids containing nitrites.

Claims 22-23 and 25-27 as amended and new claim 30 are patentable over Hansen under 35 U.S.C. § 103. Hansen does not describe, teach or suggest combination of an ethylene glycol containing fluid with a second glycol, such as propylene glycol, in any proportions, much less in the proportions set forth in claims 22-23 and 25-27 as amended and new claim 30. The general description that compounds may be mixed does not render obvious specific formulations that provide unexpected results. See In re Baird,

16 F.3d 380, 382 ("The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious."); MPEP 2144.08.

Moreover, as demonstrated by the test results set forth in the application, the addition of a second glycol, such as propylene glycol, to fluids containing ethylene glycol in the proportions recited in the method of claims 22-23 and 25-27 as amended and new claim 30, unexpectedly reduced the oral toxicity of the ethylene glycol containing fluid to levels that render the fluid safe. Where, as here, the Applicant shows that a claimed range achieves unexpected results relative to the prior art, a prima facie case of obviousness is rebutted. In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); MPEP § 2144.05. There is no teaching or suggestion in Hansen to use ethylene glycol and a second glycol, such as propylene glycol, in any combination, much less in the proportions recited in claims 22-23, 25-27 and 30.

At pages 9-10 of the Office Action, the Examiner correctly states that Hansen does not teach with sufficient specificity a method for reducing the toxicity of an ethylene glycol based fluid by the addition of a polyhydric alcohol such as propylene glycol or glycerol. The Examiner incorrectly states, however, that it would have been obvious to one skilled in the art to reduce the oral toxicity of an ethylene glycol based fluid because Hansen teaches or suggests reducing the oral toxicity by addition of a diol such as propylene glycol. Hansen does not recognize or discuss the problem of reducing the oral toxicity of ethylene glycol based fluids, much less describe, teach or suggest a method to reduce the toxicity of a non-aqueous ethylene glycol based fluid as recited in the new and amended claims. Moreover, Hansen does not describe, teach or suggest, combining ethylene glycol containing fluids with a polyhydric alcohol such as propylene glycol or glycerol in any specific proportions, much less the specific proportions recited in claims

22-23, 25-27 and 30, which resulted in a fluid having an unexpectedly large decrease in oral toxicity. As shown, for example, in Fig. 3, the predicted LD₅₀ in rats for the claimed combination of ethylene glycol and propylene glycol was about 6,000 mg/kg or less. As set forth in the specification at pages 24-27, the inventors discovered that the claimed compositions unexpectedly had an LD₅₀ in rats of at least 10,000 mg/kg or more.

For at least the foregoing reasons, claims 22-23, 25-27 and 30 are patentable over Hansen under 35 U.S.C. § 103(a).

The Rejections Under 35 U.S.C. § 103(a) Based Upon Wood

Claims 22-23 and 25-29 stand rejected under 35 U.S.C. § 103 over Wood, U.S. Patent No. 4,455,248. Claims 28 and 29 were previously withdrawn. Wood describes an antifreeze coolant composition for use in aqueous coolant systems and heat transfer services. Col. 3, lines 13-26. The compositions include water soluble corrosion inhibitors to reduce corrosion of metal surfaces in the cooling system using aqueous coolants. Wood states that the corrosion inhibitor composition is based upon one or more glycols. Col. 2, lines 56-67. Wood lists several glycols that may be used in the formulation, but Wood does not describe any specific mixtures of glycols. All of the examples provided in Wood use only ethylene glycol. Col. 5, line 9 to col. 6, line 54.

Claims 22-23 and 25-27 as amended and new claim 30 are patentable over Wood under 35 U.S.C. § 103. Wood does not describe, teach or suggest combination of an ethylene glycol containing fluid with a second glycol, such as propylene glycol, in any proportions, much less in the proportions set forth in claims 22-23 and 25-27 as amended and new claim 30. The general description that compounds may be mixed does not render obvious specific formulations that provide unexpected results. See In re Baird, 16 F.3d 380, 382 ("The fact that a claimed compound may be encompassed by a disclosed generic formula does not by itself render that compound obvious."); MPEP 2144.08.

Moreover, as demonstrated by the test results set forth in the application, the addition of a second glycol, such as propylene glycol, to fluids containing ethylene glycol in the proportions recited in the method of claims 22-23 and 25-27 as amended, unexpectedly reduced the oral toxicity of the ethylene glycol containing fluid to levels that render the fluid safe. Where, as here, the Applicant shows that a claimed range achieves unexpected results relative to the prior art, a prima facie case of obviousness is rebutted. In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990); MPEP § 2:44.05. There is no teaching or suggestion in Wood to use ethylene glycol and a second glycol, such as propylene glycol, in any combination, much less in the proportions recited in claims 22-23, 25-27 and 30.

At pages 9-10 of the Office Action, the Examiner correctly states that Wood does not teach with sufficient specificity a method for reducing the toxicity of an ethylene glycol based fluid by the addition of a polyhydric alcohol such as propylene glycol or glycerol. The Examiner incorrectly states, however, that it would have been obvious to one skilled in the art to reduce the oral toxicity of an ethylene glycol based fluid because Wood teaches or suggests reducing the oral toxicity by addition of a diol such as propylene glycol. Wood does not recognize or discuss the problem of reducing the oral toxicity of ethylene glycol based fluids, much less describe, teach or suggest a method to reduce the toxicity of a non-aqueous ethylene glycol based fluid as recited in the new and amended claims. Moreover, Wood does not describe, teach or suggest, combining ethylene glycol containing fluids with a polyhydric alcohol such as propylene glycol or glycerol in any specific proportions, much less the specific proportions recited in claims 22-23, 25-27 and 30, which resulted in a fluid having an unexpectedly large decrease in oral toxicity. As shown, for example, in Fig. 3, the predicted LD₅₀ in rats for the claimed combination of ethylene glycol and propylene glycol was about 6,000 mg/kg or less. As

set forth in the specification at pages 24-27, the inventors discovered that the claimed compositions unexpectedly had an LD₅₀ in rats of at least 10,000 mg/kg or more.

For at least the foregoing reasons, claims 22-23, 25-27 and 30 are patentable over Wood under 35 U.S.C. § 103(a).

The Double Patenting Rejection

The Examiner has issued a provisional double patenting rejection citing four copending patent applications. Pursuant to MPEP § 804, if this is the sole remaining rejection prior to issuance of any of the copending applications as patents, this rejection should be withdrawn in this case. While Applicants do not admit that the claims of the present invention are obvious in view of any one of those copending applications, in the event that one or more of the copending applications issues as a patent prior to this application, Applicants will file a terminal disclaimer to obviate the double patenting rejection.

In view of the foregoing remarks, this application should now be in condition for allowance. A notice to this effect is respectfully requested. If the Examiner believes after considering these remarks, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.


Because the reasons above are sufficient to traverse the rejection, Applicants have not explored, nor do they now present, other possible reasons for traversing such rejections. Nonetheless, Applicants expressly reserve the right to do so, if appropriate, in response to any future Office Action.

Authorization is hereby given to charge our Deposit Account No. 50-3569 the \$25.00 extra claim fee for Small Entity. No additional fee is believed to be required, as November 11, 2005 was a holiday and this paper is being filed on the first business day

after that date. If any fee is required, or if necessary to cover any deficiency in fees previously paid, authorization is hereby given to charge our Deposit Account No. 50-1569.

Respectfully submitted,

Date: November 14, 2005


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